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EXAMINER

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**GROUP 3600**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/821,553  
Filing Date: March 29, 2001  
Appellant(s): SPOTNITZ ET AL.

Robert H. Hammer III  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 10/24/2005 appealing from the Office action mailed 1/11/2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-5 and 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Notten et al. (US 6,016,047) (Notten).**

**As per claim 1**, Notten teaches a method for a battery simulator, comprising:

providing more than one model of digital circuit, the model adapted to convert at least one user inputted requirement (input) into at least one output (charge storage device (CSD) design) (C. 1, L. 16-35; C. 10, L. 5-46);

providing an interface for passing inputs to the model, and passing the output from the model (C. 10, L. 5-46);

wherein the user addresses the interface with the input, the interface directs the input to at least one of the models, the model generates the output that passes through the interface to the user (C. 10, L. 5-46),

and wherein said at least one user input includes ambient temperature and battery temperature which is used to model battery temperature not to exceed allowed temperature range of operation (C. 3, L. 20-62).

Notten does not explicitly teach confidentiality of said models.

Official Notice is taken that it is well known fact that proprietary information/parameters related to the specifics of the software/models are kept confidential from customers. For example, Microsoft © Inc. maintains the confidentiality of its OS Windows © code).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Notten to include that said models are kept confidential from the user (the interface being adapted to hide the model), because it would advantageously allow the developers of said models to remain competitive on the market, thereby generate more profit.

Also, Notten does not specifically teach that said user is a customer. However, the method steps disclosed in Notten would be performed the same regardless whether the user is a customer or not. The “*providing*” through “*outputting*” steps would be performed the same regardless of the relationship between the user and the system owner. The fact that the user is a *customer* cannot alter how the process steps are to be performed. Moreover, one of ordinary skill in the art would understand that said system should not be used just one time, but rather on a regular basis.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Notten to include that said user is a customer, because it would advantageously allow the owner of said system to offer said services on a regular basis thereby generating funds for the system to operate.

**As per claim 2**, said method, wherein the model is selected from the group consisting of first principles' models, empirically-based models, and hybrid models

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consisting of combinations of first principles' models and empirically based models (C. 3, L. 1-11).

**As per claim 3**, said method, wherein said customer input further comprises a plurality of said customer inputs (C. 10, L. 7-11).

**As per claim 4**, said method, wherein the output further comprises a plurality of outputs (CSD designs) (C. 10, L. 5-46).

**As per claim 5**, said method, wherein said model is employed in combination with parameters arranged in a table (database) (C. 3, L. 1-6).

**As per claim 7**, Notten teaches a method for a battery simulator, comprising:  
providing an interface, the interface for user inputted testing procedure for the charge storage device (C. 25, L. 35-38).

providing a plurality of charge storage device models (C. 1, L. 16-35; C. 10, L. 41-45);

providing the battery management system (a routine) for selecting the best suitable model (C. 10, L. 42-44);

outputting the custom charge storage device design (C. 25, L. 18-35),

wherein the user addresses the interface with the inputted requirements (input), the interface directs the input to at least one of the models, the model generates the output that passes through the interface to the user (C. 10, L. 5-46),

and wherein said at least one user input includes ambient temperature and battery temperature which is used to model battery temperature not to exceed allowed temperature range of operation (C. 3, L. 20-62).

Notten does not explicitly teach confidentiality of said models.

Official Notice is taken that it is well known fact that proprietary information (parameters) related to the specifics of the software design is kept confidential and not disclosed to customers. For example, Microsoft Inc. maintains the confidentiality of its OS Windows © code.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Notten to include that said models are kept confidential from the customer, because it would allow the developers of said models to remain competitive on the market, thereby generate more profit.

Also, Notten does not specifically teach that said user is a customer. However, the method steps disclosed in Notten would be performed the same regardless whether the user is a customer or not. The “*providing*” through “*outputting*” steps would be performed the same regardless of the relationship between the user and the system owner. The fact that the user is a *customer* cannot alter how the process steps are to be performed. Moreover, one of ordinary skill in the art would understand that said system should not be used just one time, but rather on a regular basis.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Notten to include that said user is a customer, because it would advantageously allow the owner of said system to offer said services on a regular basis thereby generating funds for the system to operate.

**As per claim 8**, providing an interface, the interface for testing procedure for the charge storage device (C. 25, L. 35-38)

**As per claim 9**, said method, wherein the model further comprises sizing model and a performance program (C. 5, L. 64-65; C. 25, L.35-41; C. 10, L. 25-46).

**As per claim 10**, Notten teaches that the model further comprises an abuse program (C. 25, L. 1-13).

**As per claim 11**, Notten teaches that executing a simulation further comprises the step of optimizing the simulation (C. 6, L. 58-59; C. 10, L. 35-37; C. 25, L. 35-39).

**As per claim 12**, Notten teaches that outputting the custom charge storage device design further comprises the step of reporting the design (C. 1, L. 16-35; C. 10, L. 5-46).

#### **(10) Response to Argument**

##### **Argument A.**

##### **Claims 1-5**

**11.1** Applicant argues that Notten does not teach "a customer inputted requirement being selected from the group consisting of energy density, cycle life, rate capability, impedance, temperature range of operation and/or survival, safety requirements, storage life, self-discharge behavior, form factor and cost".

In response to this argument, Examiner points out that Notten explicitly teaches said feature. Specifically, Notten teaches: calculating at least one characteristic of a physical quantity of the battery based on the selected parameters, wherein said selected parameters including battery temperature (column 6, lines 43-49). Furthermore, Notten teaches: "the



*battery management system (100) may receive input from a user specifying the type of battery. Such input may be received via a user interface of the battery charger (column 10, lines 37-40). And furthermore, Notten teaches: "... the battery temperature is modeled as depending on an heat flow between the battery and an environment of the battery. Particularly in situations where the ambient temperature may change significantly, it is advantageous to incorporate the actual ambient temperature in the calculation of the battery temperature (column 3, lines 56-62). By incorporating considerable changes in temperature into the model, particularly the accuracy of the state of charge prediction can increase significantly (column 4, lines 2-5)."*

**11.2** Applicant argues that Notten fails to mention anything with regard to a design output for a charge storage device.

In response to this argument, Examiner points out that Notten explicitly teaches said feature. Specifically, Notten teaches: "*receiving an input value of at east one parameter representative of a physical quantity of the battery; calculating at least one characteristic of a physical quantity of the battery at least partially based on the input value and a battery temperature; generating an output characteristic derived from the calculated characteristic of the physical quantity*" (column 1, lines 25-32), and "*producing the battery according to the generated output characteristics*." (column 1, lines 35-36). Examiner stipulates that the cited portions of the Notten's patent (column 1, lines 25-36) disclose all possible interpretations of the term "*design output*", including theoretical or abstract (logical) values, as well as "hardware" implementation of the design, or product per se.

**11.3** Applicant argues that Notten fails to mention anything with regard to the *models being hidden from customers*.

In response to this argument, it is noted that Official Notice was applied for this feature. Specifically, Examiner maintains that it is well known fact that proprietary information (parameters) related to the specifics of the software design is kept confidential and not disclosed to customers. An example would be a well-known fact that Microsoft © Inc. maintains the confidentiality of its OS Windows © code.

**11.4** Applicant argues that Notten fails to mention anything with regard to an input provided by a *customer, i. e. a person*.

In response to this argument, Examiner points out that Notten explicitly teaches a user (person): "*the battery management system (100) may receive input from a user specifying the type of battery. Such input may be received via a user interface of the battery charger* (column 10, lines 37-40). As per term "customer", the Applicant further argues that this term can be defined as "*a person who buys goods or services, especially on a regular basis*". With this definition in mind, the Applicant insists, Notten fails to disclose "input provided by a *customer*."

In response to this argument, Examiner points out that functionality implied by the term "customer", is attributable to relationship between a user of the system and a system's owner (*buying on a regular basis*), which is completely outside of the recited method steps. The "*providing*" through "*outputting*" steps would be performed the same regardless of the relationship between the user and the system owner. The fact that the user is a customer or not cannot alter how the process steps are to be performed. The method steps, disclosed in Notten would be performed the same regardless whether the user is a customer (*a person buying goods on a regular basis*), or not. Moreover, one of ordinary skill in the art would understand that said system should not be used just one time, but rather on a regular basis. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Notten to include that said user is a customer, because it would advantageously allow the owner of said system to offer said services on a regular basis thereby generating funds for the system to operate.

### **Argument B.**

#### **Claims 7-12**

**11.5** Arguments provided by the Applicant with regard to Claims 7-12 are the same as for Claims 1-5. Without indicating by the Applicant how the arguments for the Claims 7-12 differ from the arguments for Claims 1-5, Examiner stipulates that the examiner's response to the arguments for Claims 1-5 is equally applicable to arguments for Claims 7-12.

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**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Igor Borissov

A handwritten signature in black ink, appearing to be 'Igor Borissov', with a large loop at the end.

IB

January 17, 2006

Conferees:

John Weiss

A handwritten signature in black ink, appearing to be 'John Weiss', with a large loop at the end.

Thomas Dixon

A handwritten signature in black ink, appearing to be 'Thomas Dixon', with a large loop at the end.